## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10	120/	.75	3/	4		
Source:			15	W	16		
Date Processed by STIC:			12	12	104	<u>L</u>	
•				, ,			

## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 12/02/2004
PATENT APPLICATION: US/10/021,753A TIME: 11:34:35

Input Set : D:\UTSH251US.APP.txt

3 <110> APPLICANT: FUJISE, KEN

```
YEH, EDWARD T.H.
 6 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS RELATING TO FORTILIN, AN
        ANTI-APOPTOTIC MOLECULE, AND MODULATORS OF FORTILIN
 9 <130> FILE REFERENCE: UTSH:251US
11 <140> CURRENT APPLICATION NUMBER: 10/021,753A
12 <141> CURRENT FILING DATE: 2001-10-30
14 <150> PRIOR APPLICATION NUMBER: 60/244,416
15 <151> PRIOR FILING DATE: 2000-10-30
17 <160> NUMBER OF SEQ ID NOS: 9
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEO ID NO: 1
22 <211> LENGTH: 830
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <220> FEATURE:
27 <221> NAME/KEY: CDS
28 <222> LOCATION: (95)..(613)
30 <400> SEQUENCE: 1
31 cccccccgag cgccgctccg gctgcaccgc gctcgctccg agtttcaggc tcgtgctaag 60
33 ctagegoogt egtegtetee etteagtege cate atg att ate tae egg gae etc 115
                                         Met Ile Ile Tyr Arg Asp Leu
34
37 atc agc cac gat gag atg ttc tcc gac atc tac aag atc cgg gag atc
                                                                      163
38 Ile Ser His Asp Glu Met Phe Ser Asp Ile Tyr Lys Ile Arg Glu Ile
                                15
39
            10
41 gcg gac ggg ttg tgc ctg gag gtg gag ggg aag atg gtc agt agg aca
                                                                      211
42 Ala Asp Gly Leu Cys Leu Glu Val Glu Gly Lys Met Val Ser Arg Thr
                            30
45 gaa ggt aac att gat gac teg etc att ggt gga aat gee tee get gaa
                                                                      259
46 Glu Gly Asn Ile Asp Asp Ser Leu Ile Gly Gly Asn Ala Ser Ala Glu
                        45
                                            50
49 ggc ccc gag ggc gaa ggt acc gaa agc aca gta atc act ggt gtc gat
                                                                      307
50 Gly Pro Glu Gly Glu Gly Thr Glu Ser Thr Val Ile Thr Gly Val Asp
                    60
                                        65
53 att qtc atq aac cat cac ctq caq qaa aca agt ttc aca aaa gaa gcc
                                                                      355
54 Ile Val Met Asn His His Leu Gln Glu Thr Ser Phe Thr Lys Glu Ala
                                    80
57 tac aag aag tac atc aaa gat tac atg aaa tca atc aaa ggg aaa ctt
                                                                      403
58 Tyr Lys Lys Tyr Ile Lys Asp Tyr Met Lys Ser Ile Lys Gly Lys Leu
            90
                                95
59
61 gaa gaa cag aga cca gaa aga gta aaa cct ttt atg aca ggg gct gca
                                                                      451
62 Glu Glu Gln Arg Pro Glu Arg Val Lys Pro Phe Met Thr Gly Ala Ala
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/021,753A

DATE: 12/02/2004
TIME: 11:34:35

Input Set : D:\UTSH251US.APP.txt

```
105
                           110
63
                                                                      499
65 qaa caa atc aaq cac atc ctt gct aat ttc aaa aac tac cag ttc ttt
66 Glu Gln Ile Lys His Ile Leu Ala Asn Phe Lys Asn Tyr Gln Phe Phe
                       125
                                                                      547
69 att ggt gaa aac atg aat cca gat ggc atg gtt gct cta ttg gac tac
70 Ile Gly Glu Asn Met Asn Pro Asp Gly Met Val Ala Leu Leu Asp Tyr
                   140
                                       145
73 cgt gag gat ggt gtg acc cca tat atg att ttc ttt aag gat ggt tta
                                                                      595
74 Arg Glu Asp Gly Val Thr Pro Tyr Met Ile Phe Phe Lys Asp Gly Leu
              155
                                   160
77 gaa atg gaa aaa tgt taa caaatgtggc aattattttg gatctatcac
                                                                      643
78 Glu Met Glu Lys Cys
           170
79
81 ctgtcatcat aactggcttc tgcttgtcat ccacacaaca ccaggactta agacaaatgg 703
83 gactgatgtc atcttgagct cttcatttat tttgactgtg atttatttgg agtggaggca 763
85 ttgtttttaa gaaaaacatg tcatgtaggt tgtctaaaaa taaaatgcat ttaaactcat 823
87 ttgagag
90 <210> SEQ ID NO: 2
91 <211> LENGTH: 172
92 <212> TYPE: PRT
93 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 2
96 Met Ile Ile Tyr Arg Asp Leu Ile Ser His Asp Glu Met Phe Ser Asp
98 Ile Tyr Lys Ile Arg Glu Ile Ala Asp Gly Leu Cys Leu Glu Val Glu
                20
100 Gly Lys Met Val Ser Arg Thr Glu Gly Asn Ile Asp Asp Ser Leu Ile
102 Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ser
        5.0
                             55
104 Thr Val Ile Thr Gly Val Asp Ile Val Met Asn His His Leu Gln Glu
                         70
                                             75
106 Thr Ser Phe Thr Lys Glu Ala Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
                                         90
                     85
108 Lys Ser Ile Lys Gly Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys
                                    105
110 Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
                                120
           115
112 Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
                            135
                                                140
114 Met Val Ala Leu Leu Asp Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met
                        150
116 Ile Phe Phe Lys Asp Gly Leu Glu Met Glu Lys Cys
117
121 <210> SEQ ID NO: 3
122 <211> LENGTH: 172
123 <212> TYPE: PRT
124 <213> ORGANISM: Rabbit
126 <400> SEQUENCE: 3
```

RAW SEQUENCE LISTING DATE: 12/02/2004 PATENT APPLICATION: US/10/021,753A TIME: 11:34:35

Input Set : D:\UTSH251US.APP.txt

128	Met 1	Ile	Ile	Tyr	Arg 5	Asp	Leu	Ile	Ser	His 10	Asp	Glu	Met	Phe	Ser 15	Asp
	Ile	Tyr	Lys	Ile 20	Arg	Glu	Ile	Ala	Gly 25	Gly	Leu	Cys	Leu	Glu 30	Val	Glu
	Gly	Lys	Met 35	Val	Ser	Arg	Thr	Glu 40	Gly	Asn	Ile	Asp	Asp 45	Ser	Leu	Ile
	Gly	Gly 50		Ala	Ser	Ala	Glu 55		Pro	Glu	Gly	Glu 60		Thr	Glu	Ser
139			Ile	Thr	Gly		Asp		Val	Met			His	Leu	Gln	Glu 80
140	65	Core	Dho	Thr	Tira	70		Trans	Tvc	Tvc	7,5	Tlo	Larc	Agn	Tur	
143	IIII	ser	Pne	1111	ыу s 85	GIU	АГА	1 Y L	цур	90	ı yı	110	цуз	1101	95	1100
	Tvc	Sar	т1Д	Lys		Lvc	T.e.11	Glu	Glu		Ara	Pro	Glu	Ara		Lvs
146	цуз	DET	110	100	Gry	טעם	пси	014	105	0111	9		010	110		1
	Dro	Dha	Mot	Thr	Glv	Δla	Δla	Glu		Tle	Lvs	His	Tle		Ala	Asn
149	110	1110	115	A 114	OI y	1114	1114	120	0.1.1	220	-1-		125			•
	Phe	Lvs		Tyr	Gln	Phe	Tvr		Glv	Glu	Asn	Met		Pro	Asp	Gly
152	1110	130	11011	- 1 -	0		135		1			140				1
	Met		Δla	Leu	Len	Asp		Ara	Glu	Asp	Glv		Thr	Pro	Phe	Met
	145	vul				150	-1-	5		E	155					160
		Phe	Phe	Lys	Asp		Leu	Glu	Met.	Glu	Lvs	Cvs				
158	110			-10	165	1				170	-	1				
	<210	)> SI	EO TI	ONO:												
			-	H: 1												
	<212				_											
	<21				Marg		~7	_								
			COLTIN.	LOPI.	Mus	าแนรง	Jului	j i								
166						muse	Jului	j.								
	<40	0> SI	EQUE	NCE:	4				Ser	His	Asp	Glu	Leu	Phe	Ser	Asp
	<40	0> SI	EQUE		4				Ser	His	Asp	Glu	Leu	Phe	Ser	Asp
167 168	<400 Met	0> SI Ile	EQUE Ile	NCE: Tyr	4 Arg 5	Asp	Leu	Ile		10			•		15	
167 168	<400 Met	0> SI Ile	EQUE Ile	NCE:	4 Arg 5	Asp	Leu	Ile		10			•		15	
167 168 170 171	<400 Met 1 Ile	0> SI Ile Tyr	EQUEI Ile Lys	Tyr Ile 20	4 Arg 5 Arg	Asp Glu	Leu Ile	Ile Ala	Asp 25	10 Gly	Leu	Cys	Leu	Glu 30	15 Val	Glu
167 168 170 171 173 174	<400 Met 1 Ile Gly	O> SI Ile Tyr Lys	EQUEI Ile Lys Met 35	NCE: Tyr Ile 20 Val	4 Arg 5 Arg Ser	Asp Glu Arg	Leu Ile Thr	Ile Ala Glu 40	Asp 25 Gly	10 Gly Ala	Leu Ile	Cys Asp	Leu Asp 45	Glu 30 Ser	15 Val Leu	Glu Ile
167 168 170 171 173 174	<400 Met 1 Ile Gly	O> SI Ile Tyr Lys	EQUEI Ile Lys Met 35	Tyr Ile 20	4 Arg 5 Arg Ser	Asp Glu Arg	Leu Ile Thr	Ile Ala Glu 40	Asp 25 Gly	10 Gly Ala	Leu Ile	Cys Asp	Leu Asp 45	Glu 30 Ser	15 Val Leu	Glu Ile
167 168 170 171 173 174 176	<400 Met 1 Ile Gly	Ile Tyr Lys Gly 50	EQUEI Ile Lys Met 35 Asn	Tyr Ile 20 Val	Arg 5 Arg Ser	Asp Glu Arg Ala	Leu Ile Thr Glu 55	Ile Ala Glu 40 Gly	Asp 25 Gly Pro	10 Gly Ala Glu	Leu Ile Gly	Cys Asp Glu 60	Leu Asp 45 Gly	Glu 30 Ser Thr	15 Val Leu Glu	Glu Ile Ser
167 168 170 171 173 174 176	<400 Met 1 Ile Gly	Ile Tyr Lys Gly 50	EQUEI Ile Lys Met 35 Asn	NCE: Tyr Ile 20 Val	Arg 5 Arg Ser	Asp Glu Arg Ala	Leu Ile Thr Glu 55	Ile Ala Glu 40 Gly	Asp 25 Gly Pro	10 Gly Ala Glu	Leu Ile Gly	Cys Asp Glu 60	Leu Asp 45 Gly	Glu 30 Ser Thr	15 Val Leu Glu	Glu Ile Ser
167 168 170 171 173 174 176 177 179	<400 Met 1 Ile Gly Gly Thr 65	O> SI Ile Tyr Lys Gly 50 Val	EQUEI Ile Lys Met 35 Asn	NCE: Tyr Ile 20 Val Ala Thr	Arg 5 Arg ser ser	Asp Glu Arg Ala Val	Leu Ile Thr Glu 55 Asp	Ile Ala Glu 40 Gly Ile	Asp 25 Gly Pro Val	10 Gly Ala Glu Met	Leu Ile Gly Asn 75	Cys Asp Glu 60 His	Leu Asp 45 Gly His	Glu 30 Ser Thr	15 Val Leu Glu Gln	Glu Ile Ser Glu 80
167 168 170 171 173 174 176 177 179	<400 Met 1 Ile Gly Gly Thr 65	O> SI Ile Tyr Lys Gly 50 Val	EQUEI Ile Lys Met 35 Asn	Tyr Ile 20 Val	Arg 5 Arg ser ser	Asp Glu Arg Ala Val	Leu Ile Thr Glu 55 Asp	Ile Ala Glu 40 Gly Ile	Asp 25 Gly Pro Val	10 Gly Ala Glu Met	Leu Ile Gly Asn 75	Cys Asp Glu 60 His	Leu Asp 45 Gly His	Glu 30 Ser Thr	15 Val Leu Glu Gln	Glu Ile Ser Glu 80
167 168 170 171 173 174 176 177 179 180 182	<400 Met 1 Ile Gly Gly Thr 65 Thr	Ile Tyr Lys Gly S0 Val	EQUEI Ile Lys Met 35 Asn Val	Tyr Ile 20 Val Ala Thr	Arg 5 Arg Ser Ser Gly Lys 85	Asp Glu Arg Ala Val 70 Glu	Leu Ile Thr Glu 55 Asp	Ile Ala Glu 40 Gly Ile Tyr	Asp 25 Gly Pro Val	10 Gly Ala Glu Met Lys 90	Leu Ile Gly Asn 75 Tyr	Cys Asp Glu 60 His	Leu Asp 45 Gly His	Glu 30 Ser Thr Leu Asp	15 Val Leu Glu Gln Tyr 95	Glu Ile Ser Glu 80 Met
167 168 170 171 173 174 176 177 179 180 182	<400 Met 1 Ile Gly Gly Thr 65 Thr	Ile Tyr Lys Gly S0 Val	EQUEI Ile Lys Met 35 Asn Val	NCE: Tyr Ile 20 Val Ala Thr	Arg 5 Arg Ser Ser Gly Lys 85	Asp Glu Arg Ala Val 70 Glu	Leu Ile Thr Glu 55 Asp	Ile Ala Glu 40 Gly Ile Tyr	Asp 25 Gly Pro Val	10 Gly Ala Glu Met Lys 90	Leu Ile Gly Asn 75 Tyr	Cys Asp Glu 60 His	Leu Asp 45 Gly His	Glu 30 Ser Thr Leu Asp	15 Val Leu Glu Gln Tyr 95	Glu Ile Ser Glu 80 Met
167 168 170 171 173 174 176 177 179 180 182 183 185	<400 Met 1 Ile Gly Gly Thr 65 Thr	Ile Tyr Lys Gly 50 Val Ser	EQUEI Ile Lys Met 35 Asn Val Phe	ILE 20 Val Ala Thr Thr Lys 100	Arg 5 Arg Ser Ser Gly Lys 6 Gly	Asp Glu Arg Ala Val 70 Glu Lys	Leu Ile Thr Glu 55 Asp Ala Leu	Ile Ala Glu 40 Gly Ile Tyr	Asp 25 Gly Pro Val Lys Glu 105	10 Gly Ala Glu Met Lys 90 Gln	Leu Ile Gly Asn 75 Tyr	Cys Asp Glu 60 His Ile Pro	Leu Asp 45 Gly His Lys	Glu 30 Ser Thr Leu Asp	15 Val Leu Glu Gln Tyr 95 Val	Glu Ile Ser Glu 80 Met
167 168 170 171 173 174 176 177 179 180 182 183 185	<400 Met 1 Ile Gly Gly Thr 65 Thr	Ile Tyr Lys Gly 50 Val Ser	EQUEI Ile Lys Met 35 Asn Val Phe	Tyr  Ile 20 Val Ala Thr Thr	Arg 5 Arg Ser Ser Gly Lys 6 Gly	Asp Glu Arg Ala Val 70 Glu Lys	Leu Ile Thr Glu 55 Asp Ala Leu	Ile Ala Glu 40 Gly Ile Tyr	Asp 25 Gly Pro Val Lys Glu 105	10 Gly Ala Glu Met Lys 90 Gln	Leu Ile Gly Asn 75 Tyr	Cys Asp Glu 60 His Ile Pro	Leu Asp 45 Gly His Lys Glu Ile	Glu 30 Ser Thr Leu Asp	15 Val Leu Glu Gln Tyr 95 Val	Glu Ile Ser Glu 80 Met
167 168 170 171 173 174 176 177 180 182 183 185 186 188	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys	O> SI Ile Tyr Lys Gly 50 Val Ser Ser	EQUEI Ile Lys Met 35 Asn Val Phe Leu Met	Tyr  Ile 20 Val Ala Thr Thr Lys 100 Thr	Arg 5 Arg Ser Ser Gly Lys 6ly Gly	Asp Glu Arg Ala Val 70 Glu Lys Ala	Leu Ile Thr Glu 55 Asp Ala Leu Ala	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120	Asp 25 Gly Pro Val Lys Glu 105 Gln	10 Gly Ala Glu Met Lys 90 Gln Ile	Leu Ile Gly Asn 75 Tyr Lys	Cys Asp Glu 60 His Ile Pro	Leu Asp 45 Gly His Lys Glu Ile 125	Glu 30 Ser Thr Leu Asp Arg 110 Leu	15 Val Leu Glu Gln Tyr 95 Val	Glu Ile Ser Glu 80 Met Lys
167 168 170 171 173 174 176 177 180 182 183 185 186 188	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys	O> SI Ile Tyr Lys Gly 50 Val Ser Ser	EQUEI Ile Lys Met 35 Asn Val Phe Leu Met	ILE 20 Val Ala Thr Thr Lys 100	Arg 5 Arg Ser Ser Gly Lys 6ly Gly	Asp Glu Arg Ala Val 70 Glu Lys Ala	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120	Asp 25 Gly Pro Val Lys Glu 105 Gln	10 Gly Ala Glu Met Lys 90 Gln Ile	Leu Ile Gly Asn 75 Tyr Lys	Cys Asp Glu 60 His Ile Pro	Leu Asp 45 Gly His Lys Glu Ile 125	Glu 30 Ser Thr Leu Asp Arg 110 Leu	15 Val Leu Glu Gln Tyr 95 Val	Glu Ile Ser Glu 80 Met Lys
167 168 170 171 173 174 176 177 180 182 183 185 186 188 189 191	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys Pro	O> SI Ile Tyr Lys Gly 50 Val Ser Ser Phe Asn 130	EQUENT ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	Tyr  Ile 20 Val Ala Thr Lys 100 Thr	Arg 5 Arg Ser Ser Gly Lys 6ly Gly	Asp Glu Arg Ala Val 70 Glu Lys Ala Phe	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe 135	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120 Ile	Asp 25 Gly Pro Val Lys Glu 105 Gln	10 Gly Ala Glu Met Lys 90 Gln Ile Glu	Leu Ile Gly Asn 75 Tyr Lys Lys	Cys Asp Glu 60 His Ile Pro His Met 140	Leu Asp 45 Gly His Lys Glu Ile 125 Asn	Glu 30 Ser Thr Leu Asp Arg 110 Leu Pro	15 Val Leu Glu Gln Tyr 95 Val Ala Asp	Glu Ile Ser Glu 80 Met Lys Asn Gly
167 168 170 171 173 174 176 177 180 182 183 185 186 188 189 191	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys Pro	O> SI Ile Tyr Lys Gly 50 Val Ser Ser Phe Asn 130	EQUENT ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	Tyr  Ile 20 Val Ala Thr Thr Lys 100 Thr	Arg 5 Arg Ser Ser Gly Lys 6ly Gly	Asp Glu Arg Ala Val 70 Glu Lys Ala Phe	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe 135	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120 Ile	Asp 25 Gly Pro Val Lys Glu 105 Gln	10 Gly Ala Glu Met Lys 90 Gln Ile Glu	Leu Ile Gly Asn 75 Tyr Lys Lys Asn Gly	Cys Asp Glu 60 His Ile Pro His Met 140	Leu Asp 45 Gly His Lys Glu Ile 125 Asn	Glu 30 Ser Thr Leu Asp Arg 110 Leu Pro	15 Val Leu Glu Gln Tyr 95 Val Ala Asp	Glu Ser Glu 80 Met Lys Asn Gly Met
167 168 170 171 173 174 176 177 180 182 183 185 186 188 189 191 192 194 195	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys Pro Phe Met 145	O> SI Ile Tyr Lys Gly 50 Val Ser Phe Asn 130 Val	EQUENT ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	TYr  Ile 20 Val Ala Thr Thr Lys 100 Thr Tyr Leu	Arg 5 Arg ser Ser Gly Lys 6ly Gly Gln Leu	Asp Glu Arg Ala Val 70 Glu Lys Ala Phe Asp	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe 135 Tyr	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120 Ile Arg	Asp 25 Gly Pro Val Lys Glu 105 Gln Gly Glu	10 Gly Ala Glu Met Lys 90 Gln Ile Glu Asp	Leu Ile Gly Asn 75 Tyr Lys Lys Asn Gly 155	Cys Asp Glu 60 His Ile Pro His Met 140 Val	Leu Asp 45 Gly His Lys Glu Ile 125 Asn	Glu 30 Ser Thr Leu Asp Arg 110 Leu Pro	15 Val Leu Glu Gln Tyr 95 Val Ala Asp	Glu Ile Ser Glu 80 Met Lys Asn Gly
167 168 170 171 173 174 176 177 180 182 183 185 186 188 189 191 192 194 195	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys Pro Phe Met 145	O> SI Ile Tyr Lys Gly 50 Val Ser Phe Asn 130 Val	EQUENT ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	Tyr  Ile 20 Val Ala Thr Lys 100 Thr	Arg 5 Arg ser Ser Gly Lys 6ly Gly Gln Leu	Asp Glu Arg Ala Val 70 Glu Lys Ala Phe Asp	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe 135 Tyr	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120 Ile Arg	Asp 25 Gly Pro Val Lys Glu 105 Gln Gly Glu	10 Gly Ala Glu Met Lys 90 Gln Ile Glu Asp	Leu Ile Gly Asn 75 Tyr Lys Lys Asn Gly 155	Cys Asp Glu 60 His Ile Pro His Met 140 Val	Leu Asp 45 Gly His Lys Glu Ile 125 Asn	Glu 30 Ser Thr Leu Asp Arg 110 Leu Pro	15 Val Leu Glu Gln Tyr 95 Val Ala Asp	Glu Ser Glu 80 Met Lys Asn Gly Met
167 168 170 171 173 174 176 177 180 182 183 185 186 188 189 191 192 194 195	<400 Met 1 Ile Gly Gly Thr 65 Thr Lys Pro Phe Met 145	O> SI Ile Tyr Lys Gly 50 Val Ser Phe Asn 130 Val	EQUENT ITE ITE ITE ITE ITE ITE ITE ITE ITE IT	TYr  Ile 20 Val Ala Thr Thr Lys 100 Thr Tyr Leu	Arg 5 Arg ser Ser Gly Lys 6ly Gly Gln Leu	Asp Glu Arg Ala Val 70 Glu Lys Ala Phe Asp	Leu Ile Thr Glu 55 Asp Ala Leu Ala Phe 135 Tyr	Ile Ala Glu 40 Gly Ile Tyr Glu Glu 120 Ile Arg	Asp 25 Gly Pro Val Lys Glu 105 Gln Gly Glu	10 Gly Ala Glu Met Lys 90 Gln Ile Glu Asp	Leu Ile Gly Asn 75 Tyr Lys Lys Asn Gly 155	Cys Asp Glu 60 His Ile Pro His Met 140 Val	Leu Asp 45 Gly His Lys Glu Ile 125 Asn	Glu 30 Ser Thr Leu Asp Arg 110 Leu Pro	15 Val Leu Glu Gln Tyr 95 Val Ala Asp	Glu Ser Glu 80 Met Lys Asn Gly Met

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/021,753A

DATE: 12/02/2004 TIME: 11:34:35

Input Set : D:\UTSH251US.APP.txt

```
201 <210> SEQ ID NO: 5
202 <211> LENGTH: 172
203 <212> TYPE: PRT
204 <213> ORGANISM: Chicken
206 <400> SEQUENCE: 5
207 Met Ile Ile Tyr Arg Asp Cys Ile Ser Gln Asp Glu Met Phe Ser Asp
210 Ile Tyr Lys Ile Arg Glu Val Ala Asn Gly Leu Cys Leu Glu Val Glu
213 Gly Lys Met Val Thr Arg Thr Glu Gly Gln Ile Asp Asp Ser Leu Ile
216 Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ala
219 Thr Val Ile Thr Gly Val Asp Ile Val Ile Asn His His Leu Gln Glu
                                             75
                         70
222 Thr Ser Phe Thr Lys Glu Ser Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
                                         90
225 Lys Ala Ile Lys Ala Arg Leu Glu Glu His Lys Pro Glu Arg Val Lys
                                    105
                100
228 Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
                                120
            115
229
231 Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
                            135
                                                140
234 Met Val Ala Leu Leu Asp Phe Arg Glu Asp Gly Val Thr Pro Tyr Met
                       150
                                            155
237 Ile Phe Phe Lys Asp Gly Leu Glu Ile Glu Lys Cys
                    165
241 <210> SEQ ID NO: 6
242 <211> LENGTH: 172
243 <212> TYPE: PRT
244 <213> ORGANISM: D. Melanogaster
246 <400> SEQUENCE: 6
247 Met Lys Ile Tyr Lys Asp Ile Ile Thr Gly Asp Glu Met Phe Ala Asp
                                         10
250 Thr Tyr Lys Met Lys Leu Val Asp Asp Val Ile Tyr Glu Val Tyr Gly
                20
253 Lys Leu Ile Thr Arg Gln Gly Asp Asp Ile Lys Leu Glu Gly Ala Asn
256 Ala Ser Ala Glu Glu Ala Asp Glu Gly Thr Asp Ile Thr Ser Glu Ser
                             55
259 Gly Val Asp Val Val Leu Asn His Arg Leu Thr Glu Cys Phe Ala Phe
262 Gly Asp Lys Lys Ser Tyr Thr Leu Tyr Leu Lys Asp Tyr Met Lys Lys
                     85
265 Val Leu Ala Lys Leu Glu Glu Lys Ser Pro Asp Gln Val Asp Ile Phe
                100
                                    105
268 Lys Thr Asn Met Asn Lys Ala Met Lys Asp Ile Leu Gly Arg Phe Lys
                                120
271 Glu Leu Gln Phe Phe Thr Gly Glu Ser Met Asp Cys Asp Gly Met Val
```

## RAW SEQUENCE LISTING DATE: 12/02/2004 PATENT APPLICATION: US/10/021,753A TIME: 11:34:35

Input Set : D:\UTSH251US.APP.txt

Output Set: N:\CRF4\12022004\J021753A.raw

	272		130					135					140				
	274	Ala	Leu	Val	Glu	Tyr	Arg	Glu	Ile	Asn	Gly	Asp	Ser	Val	Pro	Val	Leu
		145					150				-	155					160
	277	Met	Phe	Phe	Lys	His	Gly	Leu	Glu	Glu	Glu	Lys	Cvs				
	278				-	165	•				170	1	- 1				
	281	<21	0> S	EO I	D NO	: 7											
					H: 1												
				YPE:													
					ISM:	C. :	ELEG	ANS									
					NCE:												
							Asp	Ile	Tle	Ser	Asp	Asp	Glu	Len	Ser	Ser	Asn
	288	1			-1-	5				202	10	1100	014	<b>_</b>	001	15	пър
			Phe	Pro	Met	_	Leu	Val	Asp	Asp		Val	Tvr	Glu	Phe		Glv
	291				20	-1-			,	25	<b>~</b> 0u		-1-	010	30	<b>1</b> 110	Or y
		Lvs	His	Val		Ara	Lvs	Glu	Glv		Tle	Val	Len	Ala		Ser	Agn
	294	-		35		5	-1		40				Lou	45	V-1	-	11011
		Pro	Ser		Glu	Glu	Glv	Ala		Asp	Asp	Gly	Ser	_	Glu	His	Val
	297		50				1	55	o L u	11.01	1101	ψ± <i>j</i>	60	1101	O <sub>1</sub> u	1110	· aı
		Glu		Glv	Ile	Asp	Ile		Leu	Asn	His	Lys		Val	Glu	Met	Asn
	300	65	J	1			70					75		****	OLU	****	80
			Tvr	Glu	Asp	Ala		Met	Phe	Lvs	Ala	Tyr	Tle	Lvs	Lvs	Phe	
	303	-	4		- L	85				-1-	90	-1			<sub>1</sub>	95	1100
	305	Lvs	Asn	Val	Ile	Asp	His	Met	Glu	Lvs		Asn	Ara	Asp	Lvs		Asp
	306	1			100					105			5	1100	110		1101
	308	Val	asp	Ala	Phe	Lys	Lys	Lvs	Ile	Gln	Glv	Trp	Val	Val		Leu	Leu
	309		-	115		•	•	1	120		1			125			
	311	Ala	Lys	Asp	Arq	Phe	Lys	Asn	Leu	Ala	Phe	Phe	Ile		Glu	Ara	Ala
	312		130	-			-	135					140	2		5	
	314	Ala	Glu	Gly	Ala	Glu	Asn	Gly	Gln	Val	Ala	Ile	Ile	Glu	Tvr	Ara	Asp
		145		-			150	-				155				5	160
	317	Val	Asp	Gly	Thr	Glu	Val	Pro	Thr	Leu	Met	Leu	Val	Lvs	Glu	Ala	
	318		-	-		165					170			4		175	
	320	Ile	Glu	Glu	Lys	Cys											
	321				180	•								.′			
	324	<210	)> SI	EQ II	ONO:	: 8											
	325	<21	L> LF	ENGTE	H: 16	66											
	326	<212	2> T	PE:	PRT												
	327	<213	3> OF	RGAN]	ESM:	s. 0	Cere	risia	ae								
	329	<400	)> SI	EQUE	VCE:	8											
:	330	Met	Ile	Ile	Tyr	Lys	Asp	Ile	Phe	Ser	Asn	Asp	Glu	Leu	Leu	Ser	Asp
	331				-	5	-				10	*				15	E
:	333	Ala	Tyr	Asp	Ala	Lys	Leu	Val	Asp	qaA		Ile	Tyr	Glu	Ala		Cys
	334		-	_	20	-			-	25			-		30		4
	336	Ala	Met	Val	Asn	Val	Gly	Gly	Asp	Asn	Ile	Asp	Ile	Gly	Ala	Asn	Pro
	337			35			•	-	40			•		45			
-	339	Ser	Ala	Glu	Gly	Gly	Asp	Asp	Asp	Val	Glu	Glu	Gly	Ala	Glu	Met	Val
	340		50		-	_	-	55	-				60				
:	342	Asn	Asn	Val	Val	His	Ser	Phe	Arq	Lėu	Gln	Gln		Ala	Phe	asa	Lys
	147	<b>~</b> F							_					- "		. T-	

70

75

343 65

VERIFICATION SUMMARY

DATE: 12/02/2004

PATENT APPLICATION: US/10/021,753A

TIME: 11:34:36

Input Set : D:\UTSH251US.APP.txt